THE VALIDITY OF THE CARBACHOL-TEST IN PATIENTS WITH CHRONIC URINARY RETENTION UNDERGOING TEMPORARY SACRAL NEUROMODULATION

Aims of Study
The results of sacral neuromodulation in patients with an acontractile detrusor are unsatisfactory. Aim of study was to evaluate whether the result of the carbachol-test has predictive value in patients with chronic urinary retention undergoing a temporary sacral neuromodulation (PNE-test).

Methods
24 PNE-tests were performed in patients with chronic urinary retention and an acontractile detrusor that was determined by an urodynamic investigation. The electrodes were placed bilaterally at S3. In 18 patients, a carbachol-test was performed during the urodynamic investigation.

Results
In all 24 patients, the electrodes could be placed bilaterally at S3. 8 of the 24 patients (33.3%) could empty the bladder completely. In 12 patients, the carbachol-test was negative and in 6 patients, the carbachol-test was positive indicating a decentralised detrusor. In 5 of the 12 patients (41.7%) with a negative carbachol-test and in 3 of the 6 patients (50%) with a positive carbachol-test, complete bladder emptying (residual urine < 50 ml) was observed during the PNE-test. In all these patients, the PNE success was verified in the urodynamic investigation during PNE-test by an adequate increase in detrusor pressure and residual urine < 50 ml.

Conclusions
We conclude that the carbachol-test has no predictive value concerning the success rate during sacral neuromodulation in patients with an acontractile detrusor. The questions remains open why patients with a positive carbachol-test - indicating the detrusor decentralisation - could benefit from the bilateral sacral neuromodulation.